

Washer disinfectors for laboratory glassware G 7883–G 7736 CD

Miele
PROFESSIONAL

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Washer disinfectors for laboratory glassware



NEW G 7883 Mielabor

Washer disinfector

- Control system: Multitronic Novo plus with 8 Standard cleaning programmes
- Capacity:
39 narrow necked flasks
or 116 pipettes
or 1600 test tubes
- H 850 (820), W 600, D 600 mm

Product information
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NEW G 7883 CD Mielabor

Washer disinfector

- Features the same as for the G 7883
- Integrated hot-air drying unit and storage drawer for liquid agent supply canisters
- Capacity:
37 narrow necked flasks
or 96 pipettes
or 1600 test tubes
- H 820 (850), W 900, D 700 (600) mm

Product information
Technical data

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NEW G 7835 CD

Washer disinfector

- Control system: Freely programmable "Profitronic" controls
- Integrated hot-air drying unit and storage drawer for liquid agent supply canisters
- Capacity:
37 narrow necked flasks
or 96 pipettes
or 1600 test tubes
- H 820 (850), W 900, D 700 (600) mm

Product information
Technical data

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G 7736 CD

Washer disinfector

- Control system: Freely programmable Micro Computer Unit (MCU)
- Integrated hot-air drying unit and storage drawer for liquid agent supply canisters
- Capacity:
66 narrow necked flasks
or 96 pipettes
or 1600 test tubes
- H 1160, W 900, D 700 (600) mm

Product information
Technical data

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Note

For details of other Miele washer disinfectors for laboratory glassware see page 19 and our brochure for large machines:
Washer disinfectors for laboratory glassware
G 7825–G 7828

Added Miele benefits



Innovative market leader

- Miele has been at the forefront of developing cleaning and disinfecting machines for several decades
- Standardised cleaning processes are an important part of quality assurance GLP or GMP)



Legendary Miele quality

- Advanced technology, high quality, made in Germany
- Product development and production are in accordance with DIN EN ISO 9001 quality assurance standards
- Miele have been awarded the internationally acclaimed DIN EN ISO 14001 certification for environment management



Safety

- The final rinse is carried out with purified water for analytically clean laboratory glassware
- Injector units for processing narrow necked laboratory glassware
- Process documentation and data networking
- Thermal disinfection for hospital laboratories and the bio-technology industry (cleaning and final rinse at temperatures of up to 95°C)



Excellent support from the drawing board to implementation

- Thorough analysis and cost assessment according to your requirements
- Detailed planning with drawings
- Thorough product specific training and induction programme



The complete package from one source

- Flexible solutions for professional and economical preparation of laboratory glassware
- Baskets and inserts for a wide range of glassware
- Practical accessories: Mobile units and trolleys, water purification and softening systems



Comprehensive support system

- Highly trained Miele advisors
- Large dealer network
- Extensive network of highly qualified Miele technicians
- Maintenance and service contracts



Miele: The professionals in processing laboratory glassware

Manual versus machine preparation

Many laboratories choose to use washer disinfectors for processing their laboratory equipment such as beakers, pipettes, measuring flasks, conical and Erlenmeyer flasks, Petri dishes, test tubes etc.

One reason is to avoid the danger posed by manually handling potentially dangerous equipment. Broken glass from manual cleaning, for instance, can cause dangerous injuries. Infectious and toxic contaminants pose a health hazard. Cleaning agents used often contain substances that are highly irritant.

Because washer disinfectors operate as a closed system with programmes that run fully automatically, the potential danger to laboratory personnel can be kept to a minimum. This in turn means that machine preparation provides personnel with maximum protection.

Machine preparation also ensures that preparation can be standardised, validated and documented.

Laboratories use a wide variety of equipment made from glass, ceramic ware and plastic for testing and analysis, for isolating or cleaning substances before, during and after procedures, taking samples etc. Following on from this cleaning and drying are essential. The cleaning process must ensure that equipment, when used again, is not affected by its previous use.

The scenario will vary a lot from one laboratory to the next. To establish which machines and accessories, cleaning agents, water quality and cleaning programmes are the best ones for your needs the following aspects need to be considered:

1) Application

The application needs to be divided up into general areas first (organic, inorganic or physical chemistry, biology, microbiology, hospital, pharmaceutical, food industry, or cosmetic industry laboratory etc.) and then into areas of application or working practice (preparation work, analysis, test sampling etc.). The type of application will also be an important deciding factor in the type of machine and accessories as well as the cleaning process and selection of cleaning agents required.

2) Laboratory equipment

Laboratory equipment needs to be broken down into its various components (beakers, conical flasks, measuring flasks and cylinders, pipettes, Petri dishes, test tubes, phials, centrifugal test tubes etc.), their size or volume (1 ml, 500 ml, 1,000 ml) and the number of items requiring processing. This information will enable us to provide a detailed quotation of the right system for your requirements.

3) Contamination

Knowledge of physical and chemical attributes of the types of contamination the machine will need to deal with are of particular importance in choosing the cleaning process and type of cleaning agent to use.

Physical and chemical properties of a contaminant include, for instance, its solubility in water under acid, pH-neutral or alkaline conditions, its chemical reaction to hydrolysis or oxidation, its melting or softening point, its ability to emulsify, its suspension or dispersing properties.

4) Disinfection

For certain applications laboratory equipment has to be disinfected. On the one hand this protects laboratory personnel who come into contact with infectious contaminants at work. And on the other disinfection prevents bacterial cross contamination of test samples and instruments in medical laboratories, hygiene institutes, pharmaceutical laboratories, food and cosmetic industry laboratories.

5) Analytical methods

Methods of analysis used can be influenced by particular contaminants in laboratory glassware. Knowledge of these factors can help in selecting the correct cleaning agent.

6) Analytically clean

Each laboratory will have its own definition of "analytically clean" depending on the specification, nature and repeatability etc. of test methods used. The washer disinfectant including all its accessories and the cleaning programme used must be able to achieve cleaning results that meet the standards required by the definition.

Solution

Because requirements vary from one laboratory to the next standard solutions are often not feasible. More often than not customers require solutions which are specific to their particular needs. By working together with laboratory personnel, Miele are able to provide tailor made solutions for individual requirements.

The Miele systems cover all of the following aspects:

- Cleaning, disinfection and drying
- Water preparation
- Detergent recommendations
- Cleaning programmes can be programmed and evaluated

Systematic preparation of laboratory glassware

Cleaning and drying

The Miele system consists of the following components:

- Washer disinfectors
- Baskets and inserts for laboratory equipment

Miele's G 7883– G 7736 CD washer disinfectors are single cabinet systems in which the whole process takes place (wash, rinse and disinfection if applicable, followed by drying) in a closed system. The cleaning process is carried out with injectors using water based agents. Programmable Profitronic and MCU controls enable programmes to incorporate specific process parameters (temperature, time, amount of cleaning agents etc.) for the cleaning task in hand. With the Multitronic Novo plus controls specific process parameters can also be changed in standard cleaning programmes. The controls are able to monitor and maintain the relevant process parameters ensuring consistent standards of cleanliness. Other features and options, such as heating for the process water, dispensers for acidic, pH-neutral or alkaline cleaning agents, high performance circulation pumps, hot air drying units and automatic mobile unit recognition enable cleaning processes to be carried out fully automatically.

Miele offer a wide range of mobile units as well as baskets and inserts for laboratory glassware processing. There are injector jets for pipettes and measuring flasks, conical and Erlenmeyer flasks. Injector jets ensure thorough internal cleaning, rinsing and drying of laboratory glassware. Rotating spray arms ensure thorough external cleaning and rinsing.

There are special inserts for holding beakers, Petri dishes, wide necked bottles and Erlenmeyer flasks and test tubes securely. These can be placed in the lower or upper basket. The spray arms in the machine and in the upper basket ensure excellent internal and external cleaning and rinsing results.

Water preparation

Very often different quality water is required for different stages of a programme, e.g. for the wash and the rinse.

Usually the beginning of a wash programme would use softened water (pre-wash, main wash and first rinses). Using softened water prevents lime-scale building up in the machine as well as unwanted side effects during the cleaning process.

Fully demineralised purified water is then used in the final rinsing stages. This water quality ensures the very best surface cleanliness of laboratory glassware. However, to ensure this level of cleanliness any contamination must first be removed.

Cleaning agent

Cleaning agents can generally be split into 3 groups.

- alkaline products
- pH neutral products
- acidic products

Alkaline cleaning agents are complex mixtures and can contain substances such as potassium or sodium hydroxide, silicates, carbonates, polycarbonates, complex compounds, tensides, enzymes, oxidation agents etc. The cleaning agent must be selected according to application and type of contamination on the equipment. For instance cleaning agents without tensides, but preferably with oxidation agents should be used for equipment used for plant and cell cultures. If samples are being analysed for phosphorous or phosphates in a laboratory, then the detergent should be phosphatate or phosphonate free.

pH-neutral products generally contain tensides, emulsifiers or enzymes. They are occasionally used together with alkaline cleaning agents.

Acidic products are based on citric or phosphoric acid. They are often used for neutralisation of laboratory equipment after cleaning with an alkaline agent. Sometimes it is necessary to use a strong acidic cleaning agent, e.g. to remove limescale deposits from flasks used for water testing.

Cleaning programme

The wash programme consists of separate stages of a process carried out in the correct order using the appropriate cleaning agents. To create a suitable programme it is important to know the physical and chemical properties of the type of contamination being handled.

Many contaminants are water soluble or can be dissolved using alkalines (e.g. organic acids) or acids (e.g. amine and some metal oxides).

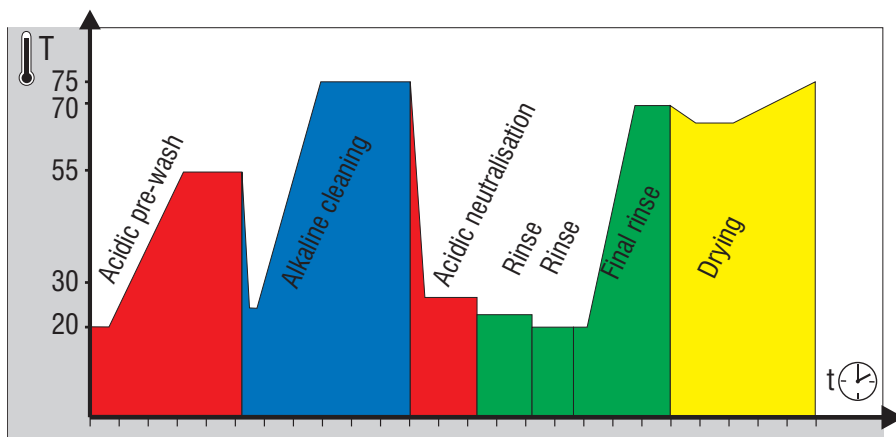
Chemical changes can convert some insoluble residues into soluble matter (e.g. alkaline hydrolysis of animal fats and oils into fatty acids and glycerine). Other contaminants are virtually chemically inert and can only be broken down or emulsified using high temperatures and tensides (e.g. paraffin wax). In certain circumstances dispensing the incorrect amount of cleaning agent, or running a programme with the process parameters set in the wrong order can lead to unsatisfactory results (e.g. running a hot pre-rinse on items contaminated blood will cause the blood to coagulate).

Process assurance

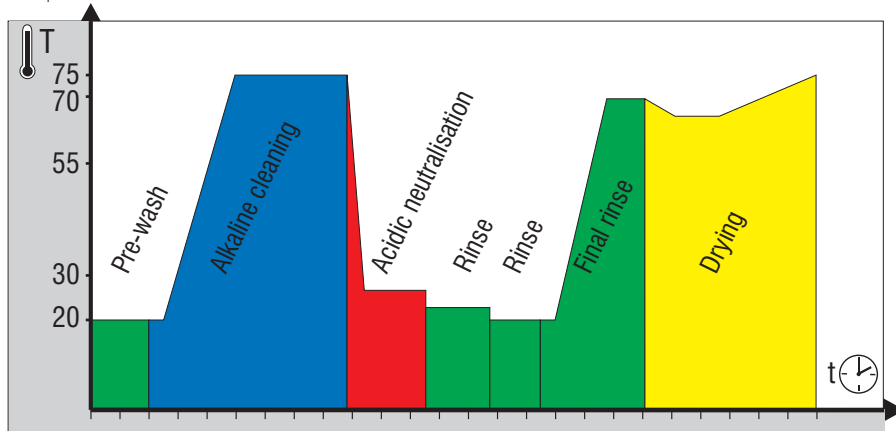
The aim of all laboratories is to carry out standardised processes which can be validated. In order to validate processes and working procedures these must be reproducible and be suitable for being documented. This requires a high degree of process assurance.

The controls used on Miele washer disinfectors can monitor validated procedures and working processes, e.g. they can:

- control and monitor temperature and time
- control the pressure of the recirculation pump
- control and monitor the amount of water used
- monitor level in the supply canisters and control the amount of liquid agents dispensed



Example 1



Example 2

The following examples are used to show two very different cleaning programmes:

Example 1:

Water testing laboratory
 Analysis: inorganic materials
 Laboratory equipment: Sample bottles
 Programme: acidic pre-wash, alkaline cleaning, acidic neutralisation, 1–2 interim rinses, final rinse with fully de-mineralised water, drying

Example 2:

Institute for cell culture
 Laboratory equipment: for cell growth
 Programme: pre-wash, alkaline cleaning with oxidation agent, tenside and phosphate free, citric acid based neutralising agent, 2 interim rinses, final rinse with purified water, drying

Laboratory glassware

Most laboratory equipment is made from borosilicate glass. Unlike other types of glass (except: quartz glass) borosilicate glass has very good physical properties and is highly resistant to chemicals. Fluxing acids and strong suds will still etch into the surface of glassware if the concentration, temperature and effective periods are increased.

Because of this alkaline cleaning agents are generally used. If at all possible longer holding periods should be avoided at temperatures significantly higher than 70°C, and mildly alkaline cleaning agents should be used to reduce glassware corrosion to a minimum.

The deterioration rate of glassware must be taken into account according to its application. For instance etching on a simple beaker is not a major problem. However, could lead to inaccurate results with volumetric equipment such as pipettes.

Conclusion

It is essential for laboratories to be provided with customised solutions for their specific needs. And this requires a good working relationship between the user and the manufacturer of the washer disinfectant!

Miele's team of application specialists have expert knowledge of the different machines and mobile units, baskets and inserts required for different uses. And our team of highly trained technicians will supervise the installation, commissioning and programming of the machine as well as train personnel in its use. Should there be technical difficulties at any time we have our own team of fully trained service technicians.

For a professional solution to your cleaning requirements you can be assured that Miele's application specialists will provide you with a highly professional service.

G 7883 and G 7883 CD Mielabor



G 7883

The new G 78 generation of washer disinfectors provide the most professional and economical solution for analytically clean laboratory glassware in industrial and research laboratories.

Miele has an extensive range of baskets and inserts designed to accommodate a diverse range of laboratory glassware.

G 7883

Washer disinfectant

- Capacity:
 - 39 narrow necked flasks
 - or 116 pipettes
 - or 1600 test tubes
- H 850 (820), W 600, D 600 mm



G 7883 CD

Washer disinfectant with drying unit

- Capacity:
 - 37 narrow necked flasks
 - or 96 pipettes
 - or 1600 test tubes
- H 820 (850), W 900, D 700 (600) mm

G 7883 CD with baskets and inserts for narrow necked glassware

Construction

- Freestanding front loading machine with drop down door
- Suitable for use freestanding or can be slotted under a countertop in an existing laboratory.
- External casing:
G 7883 – White (not for G.B.)
G 7883 and G 7883 CD – Stainless steel
- Space frame construction with side wall insulation
→ low heat- and noise-emissions
→ easy to recycle
- Wash cabinet and spray arms in high grade stainless steel

Programme controls

- Multitronic Novo plus with 8 standard-wash programmes
(See page 12 for a description of the controls, and page 35 for a description of the programmes)

Features

- Wash cabinet with 2 levels
→ high capacity
- 2 spray arms (3rd spray arm is in the upper basket)
→ thorough cleaning results
- Direct coupling of upper basket and injector mobile units to water feed
→ maximum use made of suds solution
- Profi Monobloc Water softener
→ continual reactivation during the cleaning programme
- Water intake controlled by fly wheel counter
→ precise amount of water taken in ensures the correct ratio of water to cleaning and disinfecting agents
- 4-fold suds filtration system with wide area filter, coarse filter, glass splinter filter and micro-fine filter.
- Drying unit/radial fan for hot air drying (G 7883 CD)
→ thorough internal and external drying of laboratory glassware
- Electrical door lock
→ safety for personnel
→ high process safety
- Access to check and control temperatures and temperature holding times

Dispenser system

- One dispenser each in the door for powder cleaning agent and liquid agents (rinsing agent) (G 7883/ G 7883 CD)
- 1 DOS 10/30 dispenser pump for liquid, acid agents (G 7883/ G 7883 CD)
- Connection for DOS G 60 dispenser for liquid cleaning agents (G 7883)
- 1 DOS 60/30 dispenser pump for liquid cleaning agents (G 7883 CD)
- Drawer with 2 x 5 litre containers (G 7883 CD)

Test certificates

- Protection classification IP x 1 (drip water protected)

Certification applied for

- VDE
- EMV/radio and television suppressed
- DVGW
- MPG CE 0366

Optional extras

G 7883

- Serial interface RS 232 for PC or printer for process documentation *
- AD pump for non-pressurised demineralised water feed *
- Steam condenser/heat exchanger *
- 1 dispenser (DOS module G 60) for liquid cleaning and disinfecting agents
- Plinth, H 300 mm

G 7883 CD

- AD pump for non-pressurised demineralised water feed *
- Steam condenser *
- Plinth, H 300 mm
- Machine lid

* N.B. These features are available as standard on G.B. machines

See page 34 for technical data

G 7835 CD Washer disinfector



G 7835 CD with baskets and inserts for pipettes

G 7835 CD

Washer disinfecter with drying unit

- Capacity:
37 narrow necked flasks
or 96 pipettes
or 1600 test tubes
- H 820 (850), W 900, D 700 (600) mm

Construction

- Freestanding front loading machine with drop down door
- Suitable for use freestanding or can be slotted under a countertop in an existing laboratory.
- External casing: Stainless steel
- Space frame construction with side wall insulation
→ low heat- and noise-emissions
→ easy to recycle
- Wash cabinet and spray arms in high grade stainless steel

Programme controls

- Freely programmable, Profitronic controls
(See page 13 for a description of the controls, and page 35 for a description of the programmes)

Features

- Wash cabinet with 2 levels
→ high capacity
- 2 spray arms (3rd spray arm is in the upper basket)
→ thorough cleaning results
- Direct coupling of upper basket and injector mobile units to water feed
→ maximum use made of suds solution
- Professional Monobloc Water softener
→ continual reactivation during the cleaning programme
- Water intake controlled by fly wheel counter
→ precise amount of water taken in ensures the correct ratio of water to cleaning and disinfecting agents
- Steam condenser/Aerosol
→ prevents emission of steam and hot air into the room
→ can be operated without connection to vent ducting
→ low installation costs
- 4-fold suds filtration system with wide area filter, coarse filter, glass splinter filter and micro-fine filter.
- Drying unit/radial fan for hot air drying
→ thorough internal and external drying of laboratory glassware
- Electrical door lock
→ safety for personnel
→ high process safety
- Access to check and control temperatures and temperature holding times
- Sensors in the machine for automatic mobile unit recognition

Dispenser system

- 1 DOS 10/30 dispenser pump for liquid acidic agent
- 1 DOS 60/30 dispenser pump for liquid cleaning agent
- Connections for DOS G 60 and DOS G 10 dispensers
- Drawer with 2 x 5 litre containers

Test certificates

- Protection classification IP x 1 (drip water protected)

Certification applied for

- VDE
- EMV/radio and television suppressed
- DVGW
- MPG CE 0366

Optional extras

- 1 dispenser (DOS module G 60) for liquid disinfecting agents
- 1 dispenser (DOS module G 10) for liquid rinsing agents
- AD pump for non-pressurised demineralised water feed
- Plinth, H 300 mm
- Machine lid

See page 34 for technical data



Multitronic Novo plus

G 7883 and G 7883 CD Washer disinfectors

Controls

- Multitronic Novo plus, some process parameters can be altered

Programmes

- 8 standard-cleaning programmes

Programme control

- Single knob programme selector switch

Display

- Programme sequence display
- Temperature and programme duration
- Programme end, optical and acoustic signal
- Service and fault check lights

Control and safety features

- 2 NTC probes in the sump for temperature monitoring and redundant temperature control
- Electric door lock
- Programme safety cut out
- Programme stopped in event of power cut

Interface

- Serial interface RS 232 for PC or printer for process documentation (This feature is standard or optional depending on country)
- Optical interface for service technician

Note

See page 35 for a list of programmes and their contents



Serial interface for PC or printer connection



Process data reporting using a laptop computer



Access point for measuring temperature holding times



Profitronic

G 7835 CD Washer disinfectant

Controls

- Freely programmable "Profitronic" controls

Programmes

- 64 Programme slots including:
 - 11 standard cleaning programmes
 - 8 service programmes
 - 45 free programme slots

Programme control

- User friendly clear text display
- 6 languages programmed into the machine with 1 more programmable language option

Update

- New programmes can be programmed directly into the machine via an optical interface using a laptop computer or PC

Display

- The display shows operating and programming dialogues, programme sequences, temperature, time left, fault messages and number of operating hours

Operational safety

- There are 4 user access levels:
 - A: only fixed and free-access programmes
 - B: all programmes
 - C: automatic mobile unit recognition, 15 different codes can be set.
 - D: full programme range, including programming options
- Automatic mobile unit recognition

Control and safety features

- 2 NTC probes in the sump for temperature monitoring and redundant temperature control
- Door lock
- Peak load cut out

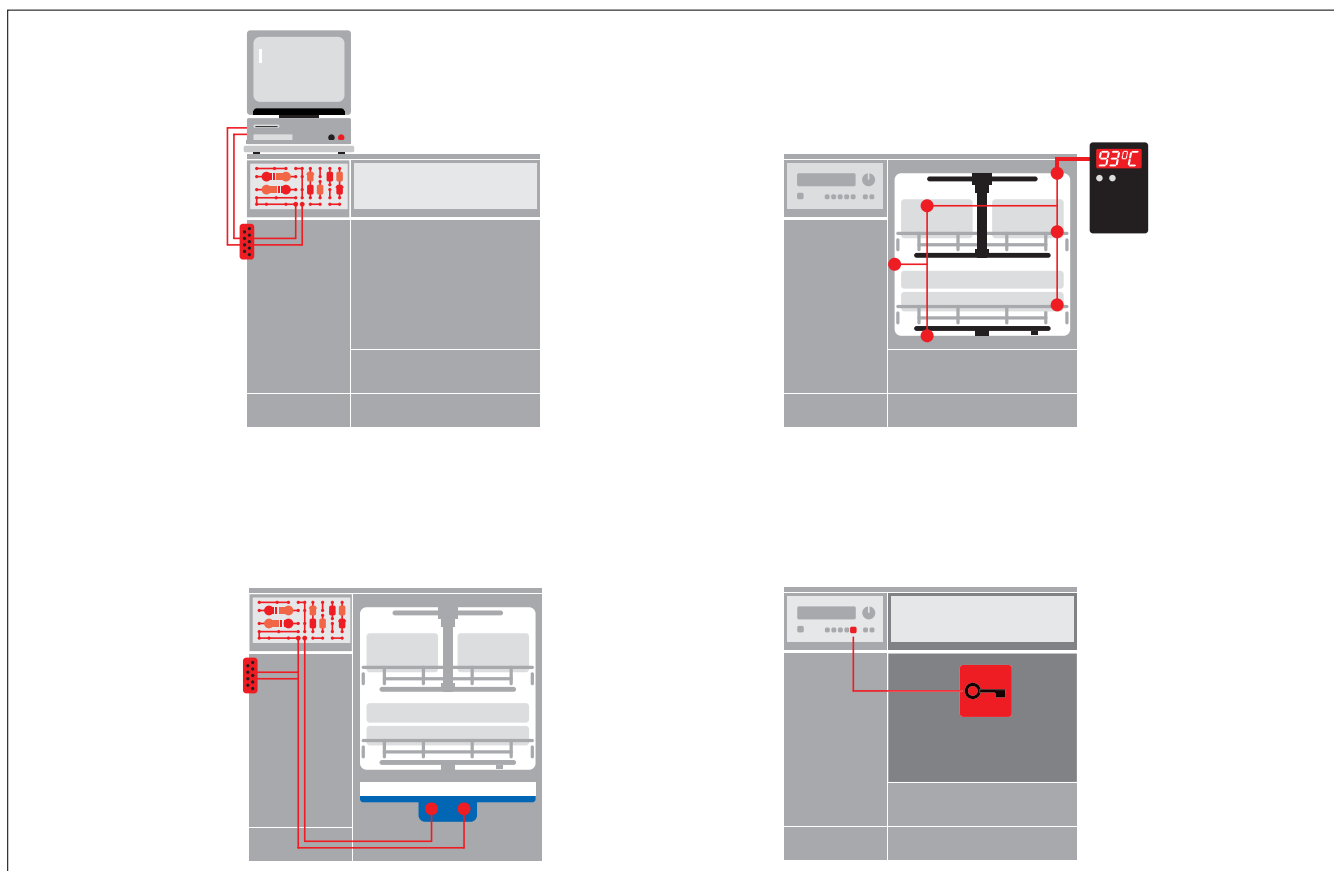
Interface

- Serial interface RS 232 for PC or printer for process documentation and networking
- Optical interface for service technician

Note

See page 35 for a list of programmes and their contents

Setting the standard



Setting the standard

Thorough cleaning is an essential prerequisite for preparing analytically clean laboratory glassware for reproducible results. The cleaning and disinfecting processes must also be validated in accordance with Health and Safety regulations. Programme data and sequences must be documented.

Miele's latest generation of washer disinfectors comply with the requirements of EN ISO 15883.

The new generation

Miele, as a leading and innovative manufacturer, has set new standards for washer disinfectors with the latest G 78 generation of machines. And in doing so have also been thinking about your pocket: All new machines can be equipped with your existing series G 77 machine baskets and inserts – so you won't need to replace everything – typically Miele.

The new G 7883, G 7883 CD and G 7835 CD washer disinfectors are a significant development in the history of cleaning and disinfecting by machi-

ne. They offer the very best in performance and reliability – both for the small laboratory as well as for laboratory glassware processing in industrial and research laboratories. The single compartment system offered by Miele washer disinfectors, in which each machine cleans, disinfects and dries, has proved itself as particularly flexible and economical. The automatic mobile unit recognition on the G 7835 CD, further ensures that instruments are cleaned in the correct programme.

Miele's new washer disinfectors have an excellent safety record just as you would expect from Miele.

Serial interface for PC or printer connection for documenting process parameters.

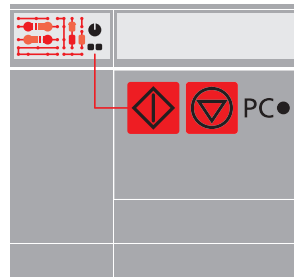
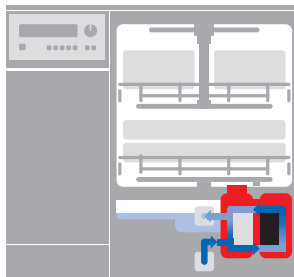
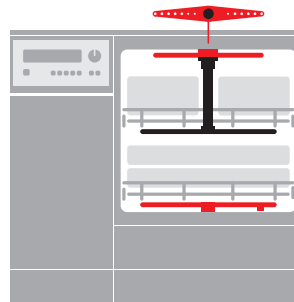
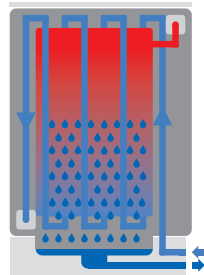
Separate sensors control and monitor the process to ensure that the machine is able to maintain cleaning, disinfecting and final rinse temperature parameters with even greater precision.

Validation and revalidation is possible thanks to the controllability of the temperature in the wash cabinet and on the items being processed via the many temperature sensors.

The door is securely locked for the whole programme duration. It can only be opened at the end of the programme if all programme parameters have been successfully achieved.

Safer
More economical
Better results

Generation
G7/8



Miele's new washer disinfectors are economical to run just as you would expect from Miele.

The steam condenser with heat exchanger ensures significantly reduced water consumption on machines without a drying unit.

Thanks to the new Profi Monobloc water softener reactivation during a cleaning programme has led to a reduction in salt consumption of about 50% (in hardness range 5°–15° dH/ 89-267ppm). A separate reactivation programme is not necessary.

If you update your machine to a newer model you can still use your existing baskets.

Service friendly and easy to recycle construction.

Miele's new washer disinfectors provide excellent cleaning performance just as you would expect from Miele.

The spray arms have been designed to deliver maximum cleaning power to the surfaces being washed at the same time as being economical with the amount water they use.

A high pressure is used for injector mobile units to ensure thorough internal cleaning e.g. of narrow necked glassware.

An additional spray arm ensures external surfaces are also thoroughly cleaned, especially when injector units are being used.

Improved wash results have been achieved by arranging the jets carefully and regulating the rotation of the spray arms.

Greater programming flexibility for cleaning and disinfecting programmes has been achieved with the new electronic controls.

G 7736 CD Washer disinfector



G 7736 CD

The G 7736 CD washer disinfector with integrated drying unit for laboratory glassware has a well proven track record as an excellent machine from the G 77 Generation. The high performance circulation pump with a water throughput level of Ø max. 600 l/min. and a 50% higher water level than the G 78 Generation machines gives this machine excellent cleaning performance.

The freely programmable Micro Computer Unit (MCU) has 64 programme slots. The user friendly clear text display makes them easy to operate. And with a serial interface for connecting a PC or printer process data can be documented.



G 7736 CD with baskets and inserts for pipettes

G 7736 CD

Washer disinfector with drying unit

- Capacity:
 - 66 narrow necked flasks
 - or 96 pipettes
 - or 1600 test tubes
- H 1160, W 900, D 700 (600) mm

G 7736 CD Washer disinfectant

Construction

- Freestanding front loading machine with drop down door
- External casing: Stainless steel
- Double skin body
→ excellent heat and sound insulation
- Wash cabinet and spray arms in high grade stainless steel

Programme controls

- Freely programmable, Micro Computer Unit (MCU)
(See page 18 for a description of the controls, and page 35 for a description of the programmes)

Features

- Direct coupling of upper basket and injector mobile units to water feed
→ maximum use made of suds solution
- Large capacity water softener
- Steam condenser/Aerosol
→ prevents emission of steam and hot air into the room
→ can be operated without connection to vent ducting
→ low installation costs
- 4-fold suds filtration system with wide area filter, coarse filter, glass splinter filter and micro-fine filter.
- Drying unit/radial fan for hot air drying
→ thorough internal and external drying of laboratory glassware

Dispenser system

- One dispenser each in the door for powder cleaning agent and liquid agents (rinsing agent)
- 1 DOS 10/30 dispenser pump for liquid acidic agent
- 1 DOS 60/30 dispenser pump for liquid cleaning agent
- Drawer with 2 x 5 litre containers

Test certificates

- VDE
- EMV/radio and television suppressed
- DVGW
- MPG CE 0366
- Protection classification IP x 1 (drip water protected)

Optional extras

- AD pump for non-pressurised demineralised water feed
- Electric door lock

See page 34 for technical data

Micro Computer Unit (MCU) controls



Micro Computer Unit

G 7736 CD Washer disinfectant

Control system

- Micro Computer Unit (MCU), freely programmable

Programmes

- 64 Programme slots including:
 - 11 standard cleaning programmes
 - 4 service programmes
 - 49 free programme slots

Programme control

- User friendly clear text display
- 6 languages programmed into the machine with 1 more programmable language option

Update

- New programmes can be programmed into the machine directly

Display

- The display shows operating and programming dialogues, programme sequences, temperature, time left, fault messages and number of operating hours

Operational safety

3 different keys allow access to the 4 switch settings.

I: Only fixed and free-access programmes

II: All options in access level I, plus:
all programmes stored in memory
Modification of header parameters:
Wash and drying temperatures and the drying duration can be set.

Parameters set in compliance with the legislation on containing epidemics (§ 18 IfSG) cannot be modified.

III: All programmes in switch setting II are accessible, as well as:
modification of system parameters:
Programme deletion, date and time, reset filter operating times, programme lock, data transfer, software and hardware update, memory assignment and definition of programme access for switch setting I.

IV: All programmes in switch setting III are accessible, as well as:
modification of service mode:
Water intake duration, times for dispenser pumps, water treatment, filter replacement times for the coarse and particle filters in the drying unit, disinfection parameters, operating language, programme running times.



Control and safety features

- Door lock
- Peak load cut out
- Programme stopped in event of power cut

Interface

- Serial interface RS 232 for PC or printer for process documentation

Note

See page 35 for a list of programmes and their contents

Washer disinfectors for laboratory glassware



G 7826

G 7825 Washer disinfectator

- Single door machine
- Wash cabinet with drop down door
H 683, W 541, D 617 mm
- Control system: Freely programmable
“Profitronic” controls
- Capacity per batch
72 narrow necked flasks
or 116 pipettes
- External dimensions
(Plinth, Washer disinfectator, Drying
unit): H 1975, W 900, D 750 mm
- External dimensions
(Plinth, Washer disinfectator, Drying
unit, Steam condenser): H 2595,
W 900, D 750 mm

G 7826 Washer disinfectator

- As G 7825, but two door through
feed model for separation into clean/
unclean side



G 7828

G 7827 Washer disinfectator

- Single door machine
- Wash cabinet with lift up door
H 675, W 650, D 800 mm
- Control system: Freely programmable
“Profitronic” controls
- Capacity per batch
115 narrow necked flasks
or 232 pipettes
- External dimensions (Plinth, Washer
disinfectator, Drying unit, and if appli-
cable Steam condenser):
H 2420, W 1150, D 870 mm

G 7828 Washer disinfectator

- As G 7827, but two door through
feed model for separation into clean/
unclean side

For detailed description see the
brochure: Washer disinfectors for labo-
ratory glassware G 7825–G 7828